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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/882,247	06/18/2001	Kenichi Okuyama	Q64706	8900

7590 01/08/2003
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EXAMINER

LEURIG, CHARLENE L

ART UNIT PAPER NUMBER

2879

DATE MAILED: 01/08/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/882,247

Applicant(s)

OKUYAMA ET AL.

Examiner

Sharlene Leurig

Art Unit

2879

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 18 June 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on 18 June 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application):
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Priority

1. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Japan on June 27, 2000. It is noted, however, that applicant has not filed a certified copy of the Japanese application as required by 35 U.S.C. 119(b).

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
3. Claim 3 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claim recites "wherein the surface area of the connecting lines is larger than said electrodes," but does not specify whether the comparison is between the surface area of an individual connecting line and an individual electrode or between the total surface area of the connecting lines and all of the electrodes on the display panel. For the purposes of examination, the claim will be interpreted as a comparison between the surface area of an individual connecting line and an individual electrode.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 4 and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Nagayama (5,936,344). Nagayama discloses an organic electroluminescent display panel comprising a substrate (Fig. 1A, element 1) including a display panel region having a plurality of organic electroluminescent devices each formed of a plurality of display electrodes (Fig. 1C, elements 2 and 4) and an organic material layer (Fig. 1B, element 3), which are stacked, and a plurality of electrically conductive connecting lines electrically connected to the electrodes formed in a domain surrounding the display panel region on the substrate (Fig. 1C, element 5), wherein the connecting lines are lower in resistance than the electrodes. The connecting lines are made of the same material of the cathode (column 1, line 57), aluminum for example, which is lower in resistance than the anode, which is made of ITO (column 2, line 11). The applicant has admitted that aluminum has a lower resistance than ITO by disclosing that the cathode, which is made of aluminum (page 11) is made of the same material as the connecting lines (page 8) which are made of a material that is less resistant than the anode material (page 4) which is made of ITO (page 9).

Regarding claim 4, the connecting lines are made of a material lower in resistance than a material of the electrodes due to the reasoning discussed above.

Regarding claim 6, the connecting lines are made of the same material as the display electrode (column 1, line 57) provided on a topmost surface (column 2, line 55).

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The thickness of the connecting lines is nearly equal to the film thickness of the electrode provided on the topmost surface (column 1, line 60).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 2, 3, 5 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nagayama (5,936,344) in view of Qian et al. (6,339,288). Nagayama discloses an organic electroluminescent display panel as discussed above, including a plurality of electrically conductive connecting lines connected to the electrodes, but lacks connecting lines constituted by electrically conductive thick portions that are thicker than the electrodes. However, Nagayama discloses the need for even luminosity of the display panel (column 1, line 19). Qian teaches the use of connecting lines with certain dimensions to avoid voltage drop that results in uneven luminosity (column 19, line 51). The preferred dimension taught by Qian is a connecting line with a thickness of 0.1 micrometers or more, or even 50 micrometers (column 19, line 60), which is taught in concert with a thinner cathode electrode of 10 nm to 1 micrometer (column 13, line 25).

Regarding claim 3, a connecting line 50 micrometers in height and 7 cm in length (column 19, line 64) would have greater surface area than an electrode that was 1 micrometer wide and 7 cm long.

Regarding claim 5, the total thickness of the connecting lines is larger than a film thickness of the cathode, which is provided on the topmost surface (Figure 6B, element 22).

Regarding claim 7, Qian's connecting lines are of uniform thickness and are made of the same material throughout (column 19, line 65).

Therefore regarding claims 2, 3, 5 and 7 it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Nagayama's connecting lines to be thicker, homogeneous, and with greater surface area than the electrode in order to achieve an organic luminescent display panel with even luminosity, as taught by Qian.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sharlene Leurig whose telephone number is (703)305-4745. The examiner can normally be reached on Monday through Friday, 8:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on (703)305-4794. The fax phone numbers for the organization where this application or proceeding is assigned are (703)308-7382 for regular communications and (703)308-7382 for After Final communications.

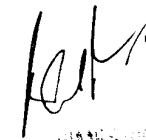
Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0956.

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Sharlene Leurig
December 18, 2002

SL


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